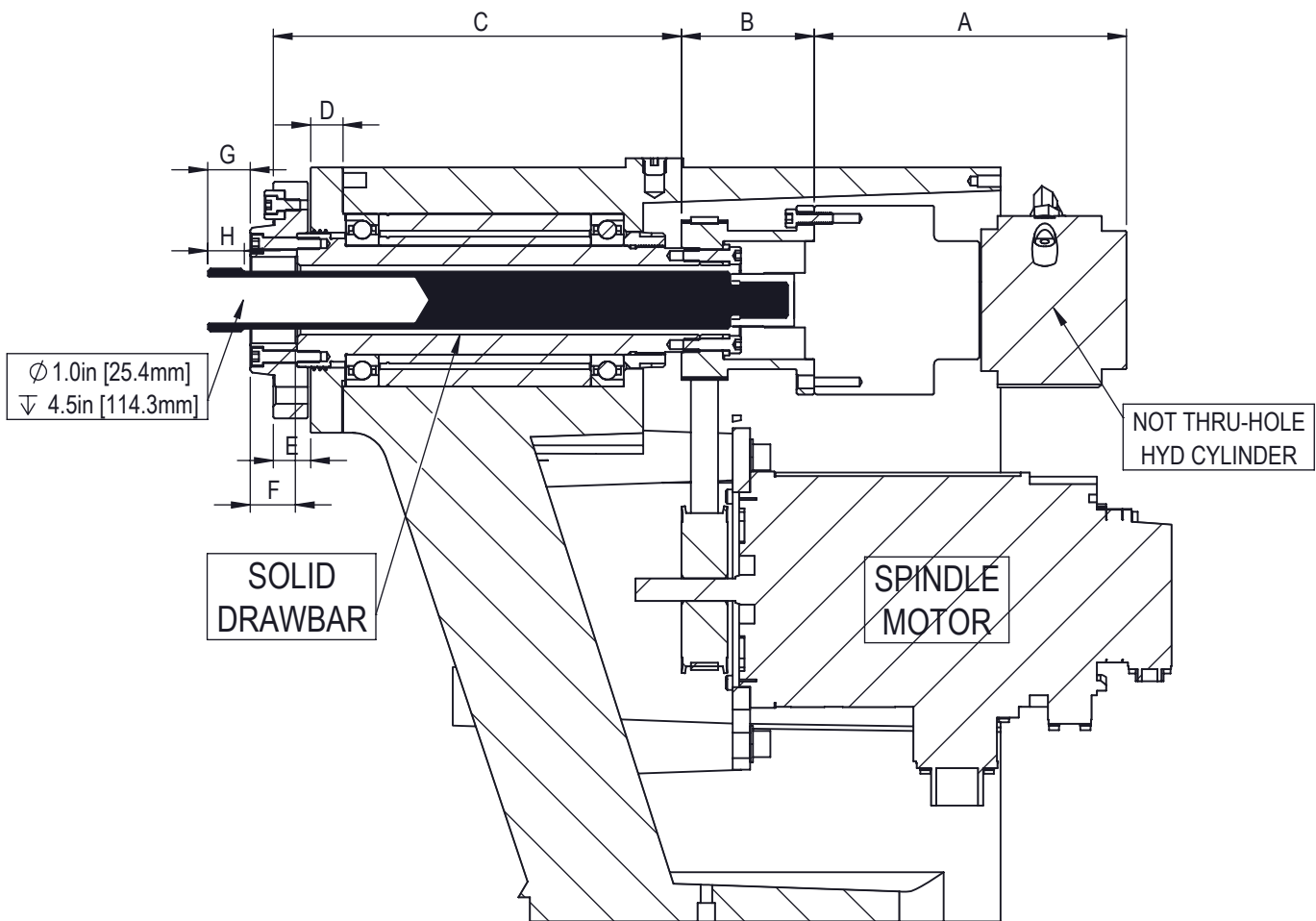


SPINDLE NOSE DETAILS PER AMERICAN STANDARD BULLETIN ASA B5.9 (ANSI)



DUE TO VENDOR VARIATIONS AND TOLERANCE BUILD-UP, HAAS STRONGLY RECOMMENDS
MEASURING DRAWTUBE EXTENDED AND RETRACTED DISTANCES ON THE MACHINE

DESCRIPTION	DIM	INCH	METRIC
HYDRAULIC UNION	A	6.77	172
REAR ADAPTOR	B	2.88	73
DISTANCE TO SPINDLE FACE	C	8.85	225
SPINDLE CAP	D	0.7	17.8
SPINDLE CAP DIAMETER	--	5.75	146
SPINDLE FACE TO CAP	E	0.81	20.5
SPINDLE COUNTERBORE DEPTH	F	1.01	25.7
SPINDLE COUNTERBORE DIAMETER	--	1.87	47.5
SPINDLE BORE DIAMETER	--	1.50	38.1
EXTENDED DRAWTUBE TO FACE OF SPINDLE	G	1.465	37.2
RETRACTED DRAWTUBE TO FACE OF SPINDLE	--	0.874	22.2
DRAWTUBE THREAD SPECIFICATION	--	(*M40) M35 X 1.5	
DRAWTUBE THREAD LENGTH	H	0.50	12.7

*M40 applies to Sub-Spindles made before July 2019